

**First Grade New Math Core Compared to the Old Math Core**  
**DRAFT 9.10.07**

<b>Common to Both (Based on New Language)</b>	<b>New Core Only</b>	<b>Old Core Only</b>
<p><b>Standard I: Students will acquire number sense and perform simple operations with whole numbers.</b></p> <p><b>Objective 1: Represent and use whole numbers up to 100.</b></p> <ul style="list-style-type: none"> <li>Count, read, and write whole numbers.</li> <li>Represent whole numbers using the number line, models, and number sentences.</li> <li>Represent whole numbers greater than 10 in groups of tens and ones using objects, pictures, and expanded notation.</li> </ul>		<ul style="list-style-type: none"> <li>Use zero to represent the number of elements in the empty set or as a placeholder in a two-digit numeral.</li> </ul>
<p><b>Objective 2: Identify simple relationships among whole numbers up to 100.</b></p> <ul style="list-style-type: none"> <li>Compare and order sets of objects and numbers using the terms greater than, less than, and equal to when describing the comparisons.</li> <li>Identify one more, one less, 10 more, and 10 less than a given number.</li> </ul>	<ul style="list-style-type: none"> <li>Make reasonable estimates of the quantitative between two sets of objects.</li> <li>Identify numbers missing from a counting sequence.</li> <li>Represent part-whole relationships using the number line.</li> </ul> <p>Extension:</p> <ul style="list-style-type: none"> <li>Identify 10 more, and 10 less than a given number.</li> </ul>	<ul style="list-style-type: none"> <li>Use ordinal numbers 1<sup>st</sup> through 5<sup>th</sup>.</li> </ul>
<p><b>Objective 3: Model, describe, and illustrate the meanings of addition and subtraction and use these operations to solve problems.</b></p> <ul style="list-style-type: none"> <li>Use a variety of models, including objects, length-based models, the number line and the ten frame to describe problem types (i.e., part-whole, combine, separate, compare).</li> <li>Use the properties of addition (i.e., commutativity, associativity, identity element) and the mathematical relationship between addition and subtraction to solve problems.</li> <li>Compute basic addition facts (up to <math>10 + 10</math>) and the related subtraction facts using strategies (e.g., <math>6 + 7 = (6 + 4) + 3 = 10 + 3 = 13</math>).</li> <li>Find the sum of three one-digit numbers.</li> </ul>	<p>Extensions:</p> <ul style="list-style-type: none"> <li>Basic addition facts up to <math>10 + 10</math> (used to be facts to 12).</li> <li>Sum of three one-digit numbers (used to limit the sum to 18).</li> </ul>	<ul style="list-style-type: none"> <li>Use fractions to identify parts of the whole.</li> <li>Separate geometric shapes and sets of objects into halves, thirds, and fourths using a variety of models and illustrations.</li> <li>Specify a region of a geometric shape when given four or fewer equal parts.</li> <li>Represent the unit fractions <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>, and <math>\frac{1}{4}</math> with objects, pictures, and symbols.</li> </ul>

<p><b>Standard II: Students will identify and use number patterns and properties to describe and represent mathematical relationships.</b></p> <p><b>Objective 1: Recognize, describe, and represent patterns with more than one attribute.</b></p> <ul style="list-style-type: none"> <li>Sort and classify objects using more than one attribute.</li> <li>Identify, create, and label repeating patterns using objects, pictures, and symbolic notation.</li> <li>Use patterns to establish skip counting by twos, fives, and tens.</li> </ul>	<ul style="list-style-type: none"> <li>Identify, create, and label growing patterns using objects, pictures, and symbolic notation.</li> </ul>	<ul style="list-style-type: none"> <li>Identify patterns in the environment.</li> <li>Count backward from 10 to 0 and identify the pattern.</li> </ul>
<p><b>Objective 2: Recognize and represent mathematical relationships using symbols and use number sentences with operational symbols to solve problems.</b></p> <ul style="list-style-type: none"> <li>Recognize that “=” indicates that the two sides of an equation are expressions of the same number.</li> <li>Recognize that “+” indicates the joining of sets and that “-“ indicates the separation of sets.</li> <li>Write and solve number sentences from problem situations involving addition and subtraction, using symbolic notation for the missing value (e.g., <math>\Delta + 4 = 7</math>).</li> </ul>	<ul style="list-style-type: none"> <li>Create problem situations from given number sentences involving addition and subtraction.</li> </ul>	
<p><b>Standard III: Students will understand simple geometry and measurement concepts as well as collect, represent, and draw conclusions from data.</b></p> <p><b>Objective 1: Identify, describe, and create simple geometric figures.</b></p> <ul style="list-style-type: none"> <li>Name, create, and sort geometric plane figures (i.e., circle, triangle, rectangle, square, trapezoid, rhombus, parallelogram, hexagon).</li> <li>Identify geometric plane and solid figures (i.e., circle, triangle, rectangle, square, trapezoid, hexagon, rhombus, parallelogram, cube, sphere, cone) in the students’ environment.</li> <li>Compose plane and solid figures (e.g., make two triangles from a square) and describe the part-whole relationships, the attributes of the figures, and how they are different and similar.</li> </ul>	<ul style="list-style-type: none"> <li>Decompose plane and solid figures and describe the part-whole relationships, the attributes of the figures, and how they are different and similar.</li> </ul> <p>Extension:</p> <ul style="list-style-type: none"> <li>Name, create, and sort geometric plane figures now includes: trapezoid, rhombus, parallelogram, and hexagon.</li> </ul>	<ul style="list-style-type: none"> <li>Use and demonstrate words to describe position and distance.</li> </ul>

<p><b>Objective 2: Identify measurable attributes of objects and units of measurement, and use appropriate techniques and tools to determine measurements.</b></p> <ul style="list-style-type: none"> <li>• Identify the appropriate tools for measuring length, weight, capacity, temperature, and time.</li> <li>• Identify the value of a penny, nickel, dime, quarter, and dollar, and determine the value of a set of the same coins that total 25¢ or less (e.g., a set of 5 nickels equals 25¢).</li> <li>• Tell time to the hour and half-hour.</li> <li>• Name the months of the year and seasons in order.</li> </ul>	<ul style="list-style-type: none"> <li>• Measure the length of an object using nonstandard units and count the units using groups of tens and ones.</li> <li>• Use a calendar to determine the day of the week and date.</li> </ul> <p>Extensions:</p> <ul style="list-style-type: none"> <li>• Value of a dollar.</li> <li>• Tell time to the ½ hour.</li> </ul>	<ul style="list-style-type: none"> <li>• Estimate the length of an object by comparing to a nonstandard unit.</li> <li>• Compare objects, using nonstandard units, according to their length, weight, or volume.</li> </ul>
<p><b>Objective 3: Collect, organize, and represent simple data.</b></p> <ul style="list-style-type: none"> <li>• Collect and represent data using tables, tally marks, pictographs, and bar graphs.</li> <li>• Describe and interpret data.</li> </ul>		<ul style="list-style-type: none"> <li>• Determine the likelihood of an event.</li> <li>• Compare events to decide which are more likely, less likely, and equally likely.</li> <li>• Relate past events to future events.</li> </ul>